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Listing of Claims

This listing of claims replaces all prior versions of the claims.

Claims 1-19 (canceled)

Claim 20. (Previously presented) A process for preparing stable and reusable biosensing granules useful in assessing biodegradability of an effluent, said process comprises the steps of:

i. culturing active aerobic microbial consortia in a synthetic growth media, wherein the aerobic microbial consortia is collected from raw sewage, wastewater treatment plants or from activated aerated sludge units,
ii. separating the active aerobic microbial consortia from the synthetic media,
iii. immobilizing the active microbial consortia using a natural polymer to form immobilized biosensing granules, and
iv. dehydrating the immobilized biosensing granules at 24-36°C for a period of 2 to 20 hours, to obtain stable biosensing granules having a moisture content of 5-30%.

Claim 21. (Cancelled)

Claim 22. (Currently amended) The process as claimed in claim 20 ~~wherein~~ wherein the culturing of the active aerobic microbial consortia comprises the steps of:

i. inoculating a synthetic growth media with a microbial consortia

collected from the group consisting of raw sewage, wastewater treatment plants and from activated aerated sludge units;

ii. incubating the inoculated microbial consortia under aerobic conditions at an air flow rate of about 5 ml/minute, at 24°C to 32°C for a period of 12-24 hours or until the level of mixed liquor suspended solids (MLSS) reaches 14500 - 15500 mg/liter on a dry weight basis; and

iii. separating the active aerobic microbial consortia by centrifugation for 10-15 minutes and at a temperature of 28°C.

Claim 23. (Currently amended) The process as claimed in claim 20 ~~wherein~~ ~~wherein~~, wherein the active aerobic microbial consortia is immobilized using an aqueous natural polymer solution to obtain immobilized biosensing beads, separating the biosensing beads, washing the beads with water, dehydrating the beads at a temperature in the range of 24°C-32°C for a period of 4-12 hours to obtain stable biosensing granules having a moisture content of 5-30%; incubating the stable biosensing granules in 2-5% (w/v) aqueous activation solution at 28°C for 2-10 hours to obtain active stable biosensing granules; and separating the active stable biosensing granules from the activation solution.

Claim 24. (Currently amended) The process as claimed in claim 20 ~~wherein~~, wherein the synthetic growth media consists of, in grams/liter ~~(in grams/liter)~~: glucose - 30.0; ammonium chloride - 6.5; potassium dihydrogen orthophosphate - 2.5; dipotassium hydrogen orthophosphate - 1.0; sodium bicarbonate - 5.5; yeast extract - 1.0; urea - 0.5; and tryptone - 1.0.

Claim 25. (Currently amended) The process as claimed in claim 20 ~~wherein~~, wherein the pH of the synthetic growth media is adjusted to about 7.0 using 0.1 N hydrochloric acid or 0.1 N sodium hydroxide.

Claim 26. (Currently amended)The process as claimed in claim 22 ~~wherein~~, wherein wherein about 10% (w/v) of the microbial consortia is inoculated in the

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synthetic growth media.

Claim 27. (Currently amended) The process as claimed in claim 22 ~~wherein~~, wherein wherein the inoculated microbial consortia is aerated by passing air at a rate of about 5 ml/minute.

Claim 28. (Currently amended) The process as claimed in claim 22 ~~wherein~~, wherein wherein the growth media is incubated at a temperature of about 28°C.

Claim 29. (Currently amended) The process as claimed in claim 22 wherein the growth of the active aerobic microbial consortia is terminated after ~~mixed liquor suspended solids (MLSS)~~ MLSS reaches 14500 - 15500 mg/liter.

Claim 30. (Currently amended) The process as claimed in claim 20 ~~wherein~~, wherein the active aerobic microbial consortia is separated from the synthetic growth by a method selected from the group consisting of centrifugation, settling and decanting of obtained supernatant.

Claim 31. (Currently amended) The process as claimed in claim 23 ~~wherein~~, wherein the separated active aerobic microbial consortia is immobilized on a natural polymer using 1-3% (w/v) sodium alginate and 0.2M calcium chloride solution.

Claim 32. (Currently amended) The process as claimed in claim 20 ~~wherein~~, wherein the active aerobic microbial consortia to obtain immobilized biosensing granules is in a range of 3-5% (w/v).

Claim 33. (Currently amended) The process as claimed in claim 20 ~~further~~, further comprising incubating the immobilized biosensing granules for 12-24 hours at 4°C in 0.2M calcium chloride aqueous solution.

Claim 34. (Currently amended) The process as claimed in claim 33 ~~wherein~~,

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wherein the immobilized biosensing granules are separated from the calcium chloride solution by decanting ~~the~~ aqueous liquid.

Claim 35. (Currently amended) The process as claimed in claim 20 ~~further~~ , further comprising incubating the stable biosensing granules for 2-10 hours in an activation solution comprising 2-5% (w/v) glucose solution, at 24-32°C to obtain active stable biosensing granules.

Claim 36.(Currently amended) The process as claimed in claim 35 ~~wherein~~ , wherein the stable biosensing granules are separated from the activation solution by draining.

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